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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Niall R. Lynam, Desmond J. O'Farrell, and Roger L. Veldman

For : MODULAR REARVIEW MIRROR ASSEMBLY INCLUDING AN ELECTRONIC CONTROL MODULE

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

PRELIMINARY AMENDMENT

Prior to examination, Applicants wish to amend their application as follows:

IN THE SPECIFICATION:

On page 1, please replace lines 3-5 with the following paragraph:

This application is a divisional application of co-pending application Ser. No. 09/477,539, filed Jan. 4, 2000, by Niall R. Lynam, Desmond J. O'Farrell, and Roger L. Veldman, entitled MODULAR REARVIEW MIRROR ASSEMBLY INCLUDING AN ELECTRONIC CONTROL MODULE, which is a divisional application of application Ser. No. 08/702,228, filed on August 23, 1996, by Niall R. Lynam, Desmond J. O'Farrell, and Roger L. Veldman, entitled MODULAR REARVIEW MIRROR ASSEMBLY INCLUDING AN ELECTRONIC CONTROL MODULE, now U.S. Pat. No. 6,019,475, which is a continuation-in-part of application serial number 08/316,047 entitled MODULAR VARIABLE REFLECTANCE MIRROR ASSEMBLY and filed on September 30, 1994.

On page 1, lines 10-28 and page 2, lines 1-7, please replace with the following paragraph:

Conventional exterior rearview assemblies include a mirror housing and a reflective element supported in the housing by a mirror actuator for engaging the reflective element for adjusting the reflective element's orientation. Typically, the mirror actuator is controlled either manually by a lever inside the vehicle or electrically by a switch inside the vehicle. In recent developments, mirror assemblies may include mirror actuators responsive to memory devices that store multiple positions for the mirror assembly's reflective element, such as

disclosed in U.S. Patent No. 5,196,965 to Lang et al. entitled REARVIEW UNIT FOR MOTOR-VEHICLES, which is incorporated by reference herein. Furthermore, mirror assemblies may include: Electro-optic reflective elements, which adjust the reflectance level of the reflective element; remote-actuated exterior vehicle security lights and signal lights, such as disclosed in commonly assigned United States Patents 5,371,659 and 5,497,305 for REMOTE ACTUATED EXTERIOR VEHICLE SECURITY LIGHT; Global Positioning System antennas or receivers, as disclosed in patent application serial number 08/569,851 filed December 8, 1995, by Roger L. Veldman and Desmond J. Farrell for a VEHICLE GLOBAL POSITIONING SYSTEM NAVIGATION AID; heaters to remove ice from the reflective element, such as disclosed in U.S. Patent Application Serial No. 07/971,676, filed November 4, 1992, by Niall R. Lynam et al. for AN ELECTROCHROMIC MIRROR FOR VEHICLES, now U.S. Pat. No. 5,446,576; and blind spot detection systems, such as disclosed in United States patent application Serial No. 60/013,941 filed March 22, 1996, by Kenneth (NMI) Schofield for PROXIMITY DETECTION OF OBJECTS IN AND AROUND A VEHICLE, now U.S. Pat. No. 5,786,772, the disclosures of which are hereby incorporated herein by reference. Various other devices housed in an exterior mirror assembly include heading sensors, intrusion detectors, variable reflectance control systems for electrochromic mirror operation, transmitting and/or receiving antennas, such as antennas for global positioning systems (GPS) and intelligent vehicle highway systems (IVHS), garage door opener transmitters and antennas, cellular telephone transmitters and antennas, and the like are candidates for positioning within a mirror assembly. For example, an electronically trainable garage door opener may be included, such as is described in United States Patent 5,479,155 issued to Zeinstra et al.

On page 2, please replace lines 8-17 with the following paragraph:

The increase in electronic functions being performed through the vehicle rearview assembly increasingly involves communication with other portions of the vehicle. For example, global positioning system (GPS) functions and intelligent vehicle highway system (IVHS) functions may interact with other modules controlling vehicle navigation and the like. A headlamp control of the type disclosed in commonly assigned United States patent application Serial No. 08/277,674 filed July 19, 1994, by Kenneth L. Schierbeek and Niall R. Lynam, for an AUTOMATIC REARVIEW MIRROR SYSTEM WITH AUTOMATIC

HEADLIGHT ACTIVATION, now U.S. Pat. No. 5,715,093, the disclosure of which is hereby incorporated herein by reference, utilizes common light sensors for activating the vehicle's headlights and establishing a partial reflectance level for an electro-optic mirror element. Such features may require interaction between the mirror assembly and a headlamp module.

On page 2, please replace lines 18-32 with the following paragraph:

The vehicular exterior mirror assembly has become sophisticated resulting in a more complicated assembly having a plurality of electrical components and electronic controls. Frequently, the electrical components and electronic controls are separately installed and, quite often, commonly mounted to the reflective element. This is especially common where an electrical function associated with the reflective element is performed. For example, in Patent Application Serial No. 08/316,047, filed September 30, 1994, by Kenneth L. Schierbeek et al., entitled MODULAR VARIABLE REFLECTANCE MIRROR ASSEMBLY, now U.S. Pat. No. 5,659,423, the disclosure of which is hereby incorporated herein by reference, two generally rearwardly directed light sensors are mounted, along with a mirror reflectance level control circuit to the back of the reflective element. Hence, the overall weight of the mirror assembly is significantly increased but without a corresponding increase in the stiffness to its supporting structure. This may result in a mirror actuator assembly and reflective element with a lower natural frequency, which subjects the mirror actuator assembly to increased vibration. This increased vibration can induce unwanted distortion in the reflected image in the reflective element and may shorten the service life of the various components subjected to the vibration.

On page 3, please replace lines 13-19 with the following paragraph:

The present invention provides an improved modular exterior rearview mirror assembly for vehicles incorporating various electronic controls, including, by way of example, instruments, antennas, sensors, and other accessories, into an electronic control module and mounting the electronic control module remotely from the mirror actuator assembly within the rearview mirror assembly to provide more space in the mirror assembly

housing, resulting in a rearview mirror assembly with significantly reduced vibration and improved accessibility to the various components in the mirror assembly.

On page 7, please replace lines 8-27 with the following paragraph:

Reflective element 14 may comprise a conventional non-electro-optic mirror element including metallic reflector coated glass substrate such as with a thin chromium reflector coating or may include a non-metallic reflector, such as a dichroic such as is described in U.S. Patent No. 5,207,492 to Roberts et al. or may be a reflector comprising a silicon reflective layer such as is described in U.S. Patent No. 5,535,056 to Caskey et al. which is herein incorporated by reference. Alternatively, reflective element 14 may comprise a variable reflective electro-optic element such as an electrochromic mirror element and may comprise one of several types of electrochromic elements—the electrochemichromic type, such as that disclosed in United States Patent No. 5,140,455 issued to Varaprasad et al. and commonly assigned with the present application, the disclosure of which is hereby incorporated herein by reference or may be of the solid state type such as that disclosed in the U.S. Patent No. 4,712,879 issued to Niall R. Lynam et al., United States Patent Application Serial No. 08/023,675, filed February 22, 1993 by Varaprasad et al., United States Patent Application Serial No. 08/193,557, filed February 8, 1994 by Varaprasad et al., and United States Application Serial No. 08/238,521, filed March 5, 1994 by Varaprasad et al., now U.S. Pat. No. 5,668,663, all commonly assigned with the present application to Donnelly Corporation, the disclosures of which are herein incorporated by reference. Such electrochromic elements comprise an electrically responsive electrochromic medium that modulates reflectivity from a reflective element. Such electrochromic mirror elements are continuously variable and exhibit multiple partial reflectant states as the voltage applied thereto is varied. Alternatively, reflective element 14 may comprise other electro-optic mirror elements, such as a liquid crystal mirror and the like.

On page 7, please replace lines 28-31 with the following paragraph:

An electrochromic mirror element 14 is preferably driven by signals produced by a variable reflectance system of the type disclosed in U.S. Patent Application Serial No. 08/316,047, for MODULAR VARIABLE REFLECTANCE MIRROR ASSEMBLY filed

September 30, 1994, now U.S. Pat. No. 5,635,281, by Kenneth L. Schierbeek et al., which is herein incorporated by reference.

On page 8, please replace lines 5-18 with the following paragraph:

Actuator assembly 20, which may also be a memory actuator of the type disclosed in U.S. Patent No. 5,196,965 to Lang et al. entitled REARVIEW UNIT FOR MOTOR-VEHICLES, is powered by a vehicle battery voltage, ignition voltage or a 12-volt supply by a power line. Because the mirror assembly is to be used as an exterior mirror, a heater pad may be positioned against reflective mirror element 14 in order to remove ice and dew from mirror element 14. Such heater structure may be of the type disclosed in commonly assigned U.S. Patent Application Serial No. 07/971,676, filed November 4, 1992, by Niall R. Lynam et al. for an ELECTROCHROMIC MIRROR FOR VEHICLES, now U.S. Pat. No. 5,446,576, the disclosure which is hereby incorporated by reference. Also, an ultrasonic transducer, such as conventionally known, can be included to remove raindrops from the outer surface 14a of the reflective mirror element 14 such as disclosed in U.S. Patent No. 5,012,593 issued to Shoji Okada et al. for DEVICE FOR REMOVING WATER DROPLETS. Alternatively, the outer surface 14a of the reflective element 14 can be wiped clean of water droplets and general debris by means of an exterior mirror wiper blade (not shown), which is commonly known in the exterior mirror assembly art.

On page 8, lines 27-33, and page 9, lines 1-16, please replace with the following paragraph:

As best illustrated in Figure 5, electronic control module 22 may include electronic devices including a memory device 27b for storing the positions for a memory mirror actuator assembly or an electronic device 27a, which is functionally interconnected electrically with one or more electrical components either in the mirror assembly case or in the vehicle compartment, such as the mirror actuator assembly 20, a heater pad, sensors for adjusting the reflectance level of an electrochromic mirror element and for automatic headlight activation, electro-optic mirror elements, blind spot detection systems, compass systems, intrusion detection systems, vehicle security lights and turn signal indicators,

keyless entry systems, and trainable garage door opener systems. Similarly, the electronic module 22 may include an electrical distribution network 27c, such as disclosed in co-pending application, entitled VEHICLE MIRROR DIGITAL NETWORK AND DYNAMICALLY INTERACTIVE MIRROR SYSTEM serial number 08/679,681, filed on July 11, 1996 (attorney Docket DONO1 P628), now U.S. Pat. No. 5,798,575, which is incorporated by reference herein. As shown in Figure 9, the network 27c may include all the previously described electronic devices. But it should be understood that Figure 9 is for illustrative purposes only and that network 27c may include only one of the electronic devices. Furthermore, these devices may be individually supported on the module 122. Electronic control module 22 may similarly support an antenna 27d for a cellular phone system, a Global Positioning System (GPS), a garage door opener, including an electronically trainable garage door opener disclosed in United States Patent 5,479,155 issued to Zeinstra et al., or the like. In the case of the cellular phone system, antenna 27d is coupled through a lead 39b that extends through the mirror assembly case into the compartment of the vehicle to the cellular phone system receiver 29. Moreover, the electronic control module 22 may support an GPS system 29e, including a GPS receiver, which would communicate to the GPS satellites through the GPS antenna, also supported on the electronic control module 22.

On page 11, lines 23-33, and page 12, lines 1-11, please replace with the following paragraph:

In another preferred embodiment, shown in Figure 7, the mirror assembly 10" includes a back can member, shell, or outer wall 54. In this embodiment, the mirror assembly 10" includes a case 12" housing and supporting mirror actuator assembly 20 on actuator support member 11", which in turn supports a reflective element assembly 13". Reflective element assembly 13" includes reflective element 14 and backing plate 16 and may include a bezel plate or bezel assembly (not shown) and may include one or more electrical components, such as a heater pad, an electro-optic element, an ultrasonic transducer, a light sensor module for adjusting the level of an electrochromic mirror element, a sensor for automatic headlights, blind spot detection systems, keyless entry systems, and the like. Reflective element 14 may be mounted on backing plate 16 by an adhesive layer 14b and further supported on backing plate 16 by a lip 16a, which extends outwardly from the perimeter of backing plate 16 and surrounds and holds reflective element 14. Actuator

support member 11" includes a central support member 55 for actuator assembly 20 and a pair of arms 56 that extend from central support member 55 to side walls 57 and 58 of the case 12". Case 12" includes a base 59 for mounting the mirror assembly 10" to a vehicle mounting bracket 60. Back can member 54 includes a pair of tabs 54a and 54b which snap onto receiving structures on the side walls 57 and 58 of the case 12". Preferably, back can 54 is preferably nylon. More preferably, back can 54 is injection molded from resinous ABS plastic, such as TERLURAN KR2889 ®. Alternately, back can 54 may comprise other resinous, melt processible plastics or moldable materials such as glass filled nylon and polypropylene. A suitable nylon is 13% glass modified nylon 6:6 sold as ZYTEL 71G13L ® or PA123G13BK-47. A suitable polypropylene is TENITE P6M4Z-007. Back can 54 snaps on to the mirror assembly case 12" to establish the color or texture of the mirror assembly case 12" so that it matches the vehicle on which it is to be mounted.

IN THE CLAIMS:

Please cancel Claims 1-53 and Claims 67-73. Please insert the following new claims.

74. (New)

A cellular phone system comprising:

a mirror assembly including a mirror case, a reflective element, and an actuator supporting said reflective element in said mirror case, said actuator permitting adjustment of an orientation of said reflective element in said case, said actuator and said reflective element defining an actuator supported reflective element assembly; and

a cellular phone system receiver including an antenna, said cellular phone system receiver adapted to receive signals and transmit signals with said antenna, said antenna supported by a wall of said mirror case, said antenna having an inherent weight, said inherent weight of said antenna being distributed to said wall of said mirror case and not to said actuator supported reflective element assembly to thereby reduce vibration of said reflective element.

75. (New)

The cellular phone system according to Claim 74, further comprising a modular housing, said antenna positioned within said modular housing.

76. (New)

The cellular phone system according to Claim 74, further comprising an electronic control module, said antenna mounted on said electronic control module in said mirror case.

77. (New)

The cellular phone system according to Claim 76, wherein said receiver is mounted to said electronic control module.

78. (New)

The cellular phone system according to Claim 76, further comprising a housing, said electronic control module being supported in said housing.

79. (New)

The cellular phone system according to Claim 78, wherein said housing comprises a modular insert mounted in said wall of said case.

80. (New)

The cellular phone system according to Claim 79, wherein said wall of said case includes an opening receiving said modular insert.

81. (New)

The cellular phone system according to Claim 76, wherein said electronic control module communicates with at least one electrical component supported in said mirror assembly.

82. (New)

The cellular phone system according to Claim 81, wherein said electrical component is supported by said reflective element.

83. (New)

The cellular phone system according to Claim 74, further comprising an electrical component housed in said mirror case, said electrical component selected from the group consisting of a heater pad, an ultrasonic transducer for detecting raindrops, a light sensor, an electro-optic mirror element, a blind spot detection system, a compass system, an intrusion detection system, a vehicle security light, a turn signal indicator, a keyless entry system, and a trainable garage door opener system.

84. (New)

The cellular phone system according to Claim 83, wherein said electrical component and said antenna are mounted on an electronic control module.

85. (New)

The cellular phone system according to Claim 74, wherein said mirror case includes a removable back can member, said antenna supported by said back can member.

86. (New)

A cellular phone system comprising:

a mirror assembly including a mirror case, a reflective element, and an actuator, said mirror case including a cavity, said actuator supporting said reflective element in said cavity, said actuator permitting adjustment of an orientation of said reflective element in said case, and said actuator and said reflective element defining an actuator supported reflective element assembly; and

a cellular phone system receiver including an antenna, said cellular phone system receiver adapted to receive signals and transmit signals with said antenna, said

antenna having an inherent weight and being supported in said cavity independent and spaced from said actuator supported reflective element assembly, said weight of said antenna being distributed to said mirror case and not to said actuator supported reflective element assembly to thereby reduce vibration of said reflective element.

87. (New)

The cellular phone system according to Claim 86, further comprising an actuator support member, said actuator support member supporting said actuator in said cavity.

88. (New)

The cellular phone system according to Claim 87, wherein said antenna is spaced from and independent from said actuator support member.

89. (New)

The cellular phone system according to Claim 86, further comprising an antenna housing, said antenna housing supporting said antenna and being mounted to said mirror case.

90. (New)

The cellular phone system according to Claim 89, further comprising an electronic module, said antenna being supported on said electronic module in said antenna housing.

REMARKS

The amendments presented herein are fully supported by the application as filed. No new matter has been entered.

The amendments to the specification are to update patent number information for several referenced patent applications and to correct several minor typographical errors.

An early and favorable action on the merits is respectfully solicited.

Respectfully submitted,

NIALL R. LYNAM,
DESMOND J. O'FARRELL, AND
ROGER L. VELDMAN

By: Van Dyke, Gardner, Linn & Burkhart, LLP

April 16, 2001
Date

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APPENDIX OF SPECIFICATION

On page 1, please replace lines 3-5 with the following paragraph:

This application is a divisional application of co-pending application Ser. No. 09/477,539, filed Jan. 4, 2000, by Niall R. Lynam, Desmond J. O'Farrell, and Roger L. Veldman, entitled MODULAR REARVIEW MIRROR ASSEMBLY INCLUDING AN ELECTRONIC CONTROL MODULE, which is a divisional application of application Ser. No. 08/702,228, filed on August 23, 1996, by Niall R. Lynam, Desmond J. O'Farrell, and Roger L. Veldman, entitled MODULAR REARVIEW MIRROR ASSEMBLY INCLUDING AN ELECTRONIC CONTROL MODULE, now U.S. Pat. No. 6,019,475, which is a continuation-in-part of application serial number 08/316,047 entitled MODULAR VARIABLE REFLECTANCE MIRROR ASSEMBLY and filed on September 30, 1994.

On page 1, lines 10-28 and page 2, lines 1-7, please replace with the following paragraph:

Conventional exterior rearview assemblies include a mirror housing[,] and a reflective element supported in the housing by a mirror actuator for engaging the reflective element for adjusting the reflective element's orientation. Typically, the mirror actuator is controlled either manually by a lever inside the vehicle or electrically by a switch inside the vehicle. In recent developments, mirror assemblies may include mirror actuators responsive to memory devices that store multiple positions for the mirror assembly's reflective element, such as disclosed in U.S. Patent No. 5,196,965 to Lang et al. entitled REARVIEW UNIT FOR MOTOR-VEHICLES, which is incorporated by reference herein. Furthermore, mirror assemblies may include: Electro-optic reflective elements, which adjust the reflectance level of the reflective element; remote-actuated exterior vehicle security lights and signal lights, such as disclosed in commonly assigned United States Patents 5,371,659 and 5,497,305 for REMOTE ACTUATED EXTERIOR VEHICLE SECURITY LIGHT; Global Positioning System antennas or receivers, as disclosed in patent application serial number 08/569,851 filed December 8, 1995, by Roger L. Veldman and Desmond J. Farrell for a VEHICLE

GLOBAL POSITIONING SYSTEM NAVIGATION AID; heaters[,] to remove ice from the reflective element, such as disclosed in U.S. Patent Application Serial No. 07/971,676, filed November 4, 1992, by Niall R. Lynam et al. for AN ELECTROCHROMIC MIRROR FOR VEHICLES, now U.S. Pat. No. 5,446,576; and blind spot detection systems, such as disclosed in United States patent application Serial No. 60/013,941 filed March 22, 1996, by Kenneth (NMI) Schofield for PROXIMITY DETECTION OF OBJECTS IN AND AROUND A VEHICLE, now U.S. Pat. No. 5,786,772, the disclosures of which are hereby incorporated herein by reference. Various other devices housed in an exterior mirror assembly include heading sensors, intrusion detectors, variable reflectance control systems for electrochromic mirror operation, transmitting and/or receiving antennas, such as antennas for global positioning systems (GPS) and intelligent vehicle highway systems (IVHS), garage door opener transmitters and antennas, cellular telephone transmitters and antennas, and the like are candidates for positioning within a mirror assembly. For example, an electronically trainable garage door opener may be included, such as is described in United States Patent 5,479,155 issued to Zeinstra et al.

On page 2, please replace lines 8-17 with the following paragraph:

The increase in electronic functions being performed through the vehicle rearview assembly increasingly involves communication with other portions of the vehicle. For example, global positioning system (GPS) functions and intelligent vehicle highway system (IVHS) functions may interact with other modules controlling vehicle navigation and the like. A headlamp control of the type disclosed in commonly assigned United States patent application Serial No. 08/277,674 filed July 19, 1994, by Kenneth L. Schierbeek and Niall R. Lynam, for an AUTOMATIC REARVIEW MIRROR SYSTEM WITH AUTOMATIC HEADLIGHT ACTIVATION, now U.S. Pat. No. 5,715,093, the disclosure of which is hereby incorporated herein by reference, utilizes common light sensors for activating the vehicle's headlights and establishing a partial reflectance level for an electro-optic mirror element. Such features may require interaction between the mirror assembly and a headlamp module.

On page 2, please replace lines 18-32 with the following paragraph:

The vehicular exterior mirror assembly has become sophisticated resulting in a more complicated assembly having a plurality of electrical components and electronic controls. Frequently, the electrical components and electronic controls are separately installed and, quite often, commonly mounted to the reflective element. This is especially common where an electrical function associated with the reflective element is performed. For example, in Patent Application Serial No. 08/316,047, filed September 30, 1994, by Kenneth L. Schierbeek et al., entitled MODULAR VARIABLE REFLECTANCE MIRROR ASSEMBLY, now U.S. Pat. No. 5,659,423, the disclosure of which is hereby incorporated herein by reference, two generally rearwardly directed light sensors are mounted, along with a mirror reflectance level control circuit to the back of the reflective element. Hence, the overall weight of the mirror assembly is significantly increased but without a corresponding increase in the stiffness to its supporting structure. This may result in a mirror actuator assembly and reflective element with a lower natural frequency, which subjects the mirror actuator assembly to increased vibration. This increased vibration can induce unwanted distortion in the reflected image in the reflective element and may shorten the service life of the various components subjected to the vibration.

On page 3, please replace lines 13-19 with the following paragraph:

The present invention provides an improved modular exterior rearview mirror assembly for vehicles incorporating various electronic controls, including, by way of example, instruments, antennas, sensors, and other accessories, into an electronic control module and mounting the electronic control module remotely from the mirror actuator assembly within the rearview mirror assembly to provide more space in the mirror assembly housing, resulting in a [rear view] rearview mirror assembly with significantly reduced vibration and improved accessibility to the various components in the mirror assembly.

On page 7, please replace lines 8-27 with the following paragraph:

Reflective element 14 may comprise a conventional non-electro-optic mirror element including metallic reflector coated glass substrate such as with a thin chromium reflector

coating or may include a non-metallic reflector, such as a dichroic such as is described in U.S. Patent No. 5,207,492 to Roberts et al. or may be a reflector comprising a silicon reflective layer such as is [discribed] described in U.S. Patent No. 5,535,056 to Caskey et al. which is herein incorporated by reference. Alternatively, reflective element 14 may comprise a variable reflective electro-optic element such as an electrochromic mirror element and may comprise one of several types of electrochromic elements—the electrochemichromic type, such as that disclosed in United States Patent No. 5,140,455 issued to Varaprasad et al. and commonly assigned with the present application, the disclosure of which is hereby incorporated herein by reference or may be of the solid state type such as that disclosed in the U.S. Patent No. 4,712,879 issued to Niall R. Lynam et al., United States Patent Application Serial No. 08/023,675, filed February 22, 1993 by Varaprasad et al., United States Patent Application Serial No. 08/193,557, filed February 8, 1994 by Varaprasad et al., and United States Application Serial No. 08/238,521, filed March 5, 1994 by Varaprasad et al., now U.S. Pat. No. 5,668,663, all commonly assigned with the present application to Donnelly Corporation, the disclosures of which are herein incorporated by reference. Such electrochromic elements comprise an electrically responsive electrochromic medium that modulates reflectivity from a reflective element. Such electrochromic mirror elements are continuously variable and exhibit multiple partial reflectant states as the voltage applied thereto is varied. Alternatively, reflective element 14 may comprise other electro-optic mirror elements, such as a liquid crystal mirror and the like.

On page 7, please replace lines 28-31 with the following paragraph:

An electrochromic mirror element 14 is preferably driven by signals produced by a variable reflectance system of the type disclosed in U.S. Patent Application Serial No. 08/316,047, for MODULAR VARIABLE REFLECTANCE MIRROR ASSEMBLY filed September 30, 1994, now U.S. Pat. No. 5,635,281, by Kenneth L. Schierbeek et al., which is herein incorporated by reference.

On page 8, please replace lines 5-18 with the following paragraph:

Actuator assembly 20, which may also be a memory actuator of the type disclosed in U.S. Patent No. 5,196,965 to Lang et al. entitled REARVIEW UNIT FOR MOTOR-

VEHICLES, is powered by a vehicle battery voltage, ignition voltage or a 12-volt supply by a power line. Because the mirror assembly is to be used as an exterior mirror, a heater pad may be positioned against reflective mirror element 14 in order to remove ice and dew from mirror element 14. Such heater structure may be of the type disclosed in commonly assigned U.S. Patent Application Serial No. 07/971,676, filed November 4, 1992, by Niall R. Lynam et al. for an ELECTROCHROMIC MIRROR FOR VEHICLES, now U.S. Pat. No. 5,446,576, the disclosure which is hereby incorporated by reference. Also, an ultrasonic transducer, such as conventionally known, can be included to remove raindrops from the outer surface 14a of the reflective mirror element 14 such as disclosed in U.S. Patent No. 5,012,593 issued to Shoji Okada et al. for DEVICE FOR REMOVING WATER DROPLETS. Alternatively, the outer surface 14a of the reflective element 14 can be wiped clean of water droplets and general debris by means of an exterior mirror wiper blade (not shown), which is commonly known in the exterior mirror assembly art.

On page 8, lines 27-33, and page 9, lines 1-16, please replace with the following paragraph:

As best illustrated in Figure 5, electronic control module 22 may include electronic devices including a memory device 27b for storing the positions for a memory mirror actuator assembly or an electronic device 27a, which is functionally interconnected electrically with one or more electrical components either in the mirror assembly case or in the vehicle compartment, such as the mirror actuator assembly 20, a heater pad, sensors for adjusting the reflectance level of an electrochromic mirror element and for automatic headlight activation, electro-optic mirror elements, blind spot detection systems, compass systems, intrusion detection systems, vehicle security lights and turn signal indicators, keyless entry systems, and trainable garage door opener systems. Similarly, the electronic module 22 may include an electrical distribution network 27c, such as disclosed in co-pending application, entitled VEHICLE MIRROR DIGITAL NETWORK AND DYNAMICALLY INTERACTIVE MIRROR SYSTEM serial number [_____] 08/679,681, filed on July 11, 1996 (attorney Docket DONO1 P628), now U.S. Pat. No. 5,798,575, which is incorporated by reference herein. As shown in Figure 9, the network 27c may include all the previously described electronic devices. But it should be understood that Figure 9 is for illustrative purposes only and that network 27c may include only one of the

electronic devices. Furthermore, these devices may be individually supported on the module 122. Electronic control module 22 may similarly support an antenna 27d for a cellular phone system, a Global Positioning System (GPS), a garage door opener, including an electronically trainable garage door opener disclosed in United States Patent 5,479,155 issued to Zeinstra et al., or the like. In the case of the cellular phone system, antenna 27d is coupled through a lead 39b that extends through the mirror assembly case into the compartment of the vehicle to the cellular phone system receiver 29. Moreover, the electronic control module 22 may support an GPS system 29e, including a GPS receiver, which would communicate to the GPS satellites through the GPS antenna, also supported on the electronic control module 22.

On page 11, lines 23-33, and page 12, lines 1-11, please replace with the following paragraph:

In another preferred embodiment, shown in Figure 7, the mirror assembly 10" includes a back can member, shell, or outer wall 54. In this embodiment, the mirror assembly 10" includes a case 12" housing and supporting mirror actuator assembly 20 on actuator support member 11", which in turn supports a reflective element assembly 13". Reflective element assembly 13" includes reflective element 14 and backing plate 16 and may include a bezel plate or bezel assembly (not shown) and may include one or more electrical components, such as a heater pad, an electro-optic element, an ultrasonic transducer, a light sensor module for adjusting the level of an electrochromic mirror element, a sensor for automatic headlights, blind spot detection systems, keyless entry systems, and the like. Reflective element 14 may be mounted on backing plate 16 by an adhesive layer [14a] 14b and further supported on backing plate 16 by a lip 16a, which extends outwardly from the perimeter of backing plate 16 and surrounds and holds reflective element 14. Actuator support member 11" includes a central support member 55 for actuator assembly 20 and a pair of arms 56 that extend from central support member 55 to side walls 57 and 58 of the case 12". Case 12" includes a base 59 for mounting the mirror assembly 10" to a vehicle mounting bracket 60. Back can member 54 includes a pair of tabs 54a and 54b which snap onto receiving structures on the side walls 57 and 58 of the case 12". Preferably, back can 54 is preferably nylon. More preferably, back can 54 is injection molded from resinous ABS plastic, such as TERLURAN KR2889 ®. Alternately, back can 54 may comprise other resinous, melt processible plastics or moldable materials such as glass filled nylon and

polypropylene. A suitable nylon is 13% glass modified nylon 6:6 sold as ZYTEL 71G13L ® or PA123G13BK-47. A suitable polypropylene is TENITE P6M4Z-007. Back can 54 snaps on to the mirror assembly case 12" to establish the color or texture of the mirror assembly case 12" so that it matches the vehicle on which it is to be mounted.

Respectfully submitted,

NIALL R. LYNAM,
DESMOND J. O'FARRELL, AND
ROGER L. VELDMAN

By: Van Dyke, Gardner, Linn & Burkhart, LLP

April 16, 2001
Date

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